

What is claimed is:

1. A compact germicidal gas discharge lamp comprising:

a plurality of glass cylinders positioned substantially parallel to each other, said plurality of glass cylinders comprising at least two different glass materials each capable of transmitting a different wavelength of ultraviolet radiation;

a tube connecting pairs of said plurality of glass cylinders together;

a first electrode placed in one end of one of said plurality of glass cylinders; and

a second electrode placed in one end of another one of said plurality of glass cylinders,

whereby a compact germicidal lamp having multiple wavelengths capable of more effective germicidal action is formed.

2. A compact germicidal gas discharge lamp as in claim 1 wherein:

the at least two different glass materials comprise doped quartz and quartz.

3. A compact germicidal gas discharge lamp as in claim 1 wherein:

the different wavelengths of ultraviolet radiation comprises a first wavelength of 254 nanometers and a second wavelength of 185 nanometers.

4. A compact germicidal gas discharge lamp as in claim 1 wherein:

the gas discharge lamp has a power greater than 500 watts.

5. A compact germicidal gas discharge lamp as in claim 1 wherein:

said tube has a diameter less than each of said plurality of glass cylinders.

6. A compact germicidal gas discharge lamp as in claim 1 further comprising:

a space between each of said plurality of glass cylinders, said space having a dimension sufficient so as to provide effective germicidal action.

7. A compact germicidal gas discharge lamp used for disinfecting a fluid comprising:

a plurality of first cylinders each made of a first material capable of transmitting ultraviolet radiation having a first wavelength;

a plurality of second cylinders each made of a second material capable of transmitting ultraviolet radiation having a second wavelength, said plurality of second cylinders placed parallel and adjacent to said plurality of first cylinders;

a tube placed between pairs of said plurality of first and second cylinders; and

an electrode placed in an end of two of said plurality of first and second cylinders,

whereby ultraviolet radiation having different wavelengths is capable of being transmitted exposing the fluid and providing effective germicidal action.

8. A compact germicidal gas discharge lamp used for disinfecting a fluid as in claim 7 wherein:

the first material comprises doped quartz and the second material comprises quartz.

9. A compact germicidal gas discharge lamp used for disinfecting a fluid as in claim 7 wherein:

the first wavelength comprises 254 nanometers and the second wavelength comprises 185 nanometers.

10. A compact germicidal gas discharge lamp used for disinfecting a fluid as in claim 7 wherein:

the gas discharge lamp has a power greater than 500 watts.

11. A compact germicidal gas discharge lamp used for disinfecting a fluid as in claim 7 wherein:

said tube has a diameter less than each of said plurality of first and second glass cylinders.

12. A compact germicidal gas discharge lamp used for disinfecting a fluid as in claim 7 further comprising:

a space between each of said plurality of first and second glass cylinders, said space having a dimension sufficient so as to provide effective germicidal action.

13. A compact germicidal gas discharge lamp used for disinfecting a fluid as in claim 12 wherein:

the space is less than the diameter of either one of said plurality of first and second glass cylinders.

14. A compact germicidal gas discharge lamp used for disinfecting a fluid comprising:

a plurality of first cylinders each made of a doped quartz material capable of transmitting ultraviolet radiation having a wavelength of approximately 254 nanometers;

a plurality of second cylinders each made of a quartz material capable of transmitting ultraviolet radiation having a wavelength of approximately 185 nanometers, said plurality of second cylinders placed parallel and adjacent to said plurality of first cylinders, each of said plurality of first and second cylinders being spaced apart to provide an ultraviolet radiation exposure to the fluid so as to provide an effective germicidal action;

a glass tube placed between pairs of said plurality of first and second cylinders; and

an electrode placed in an end of two of said plurality of first and second cylinders,

whereby ultraviolet radiation having different wavelengths is capable of being transmitted through the

doped quartz material and quartz material exposing the fluid providing an effective germicidal action.

15. A germicidal system for disinfecting a fluid comprising:

a container having an inlet and an outlet;

a fixture placed adjacent said container;

a control coupled to said fixture;

a plurality of compact germicidal lamps connected to said fixture and said control, each of said plurality of compact germicidal lamps comprising,

a plurality of glass cylinders positioned substantially parallel to each other, said plurality of glass cylinders comprising at least two different glass materials each capable of transmitting a different wavelength of ultraviolet radiation;

a tube connecting pairs of said plurality of glass cylinders together;

a first electrode placed in one end of one of said plurality of glass cylinders; and

a second electrode placed in one end of another one of said plurality of glass cylinders,

whereby the fluid is capable of flowing through said container and around said plurality of glass cylinders causing the fluid to be disinfected.